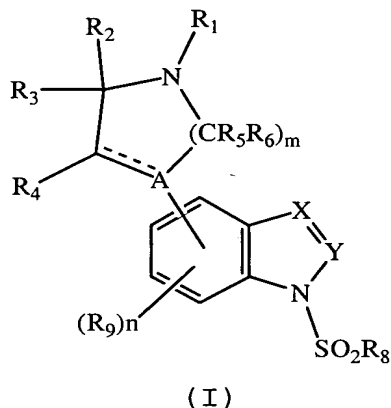


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula I



wherein

- A is ~~C, CR₁₀ or N~~;
X is ~~CR₁₁ or N~~;
Y is ~~CR₇ or N with the proviso that when X is N, then Y must be CR₇~~;
R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;
R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;
R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;
R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;
R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;
R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;
m is an integer of ~~[[1,]]~~ 2 or 3;
n is 0 or an integer of 1, 2 or 3; and

~~----~~ represents a single bond ~~or a double bond~~; or
a pharmaceutically acceptable salt thereof.

2. (Currently Amended) The compound according to claim 1
wherein ~~A is N~~ and m is 2.

3. (Original) The compound according to claim 1 wherein R₈
is an optionally substituted phenyl group.

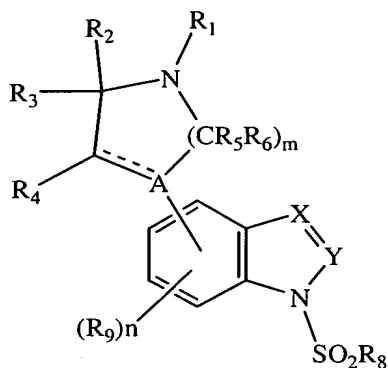
4. (Original) The compound according to claim 1 wherein R₂,
R₃, R₄, R₅ and R₆ are H.

5. (Original) The compound according to claim 2 wherein R₁
is H or a C₁-C₆alkyl or cycloheteroalkyl group each optionally
substituted.

6. (Currently Amended) The compound according to claim 5
selected from the group consisting of:
1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-
piperazin-1-yl-1H-indole;
1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-
1-yl-1H-indole;
1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-
indole;
methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl
ether;
4-piperazin-1-yl-1-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1H-
indole;
4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-
indole;
4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-
b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;

4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;
4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
~~1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;~~
~~1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;~~
~~1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(5-bromothiophen-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(5-bromothiophen-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;~~
~~1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;~~
~~1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;~~
~~1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;~~
~~1-phenylsulfonyl-4-[4-(3-phenylpropyl)piperazin-1-yl]-1H-indazole;~~ and
the pharmaceutically acceptable salts thereof.

7. (Currently Amended) A method for the treatment of a disorder of the central nervous system related to or affected by the 5-HT₆ receptor in a patient in need thereof which comprises administering to said patient a therapeutically effective amount of a compound of formula I.



(I)

wherein

A is ~~C, CR₁₀ or N~~;

X is ~~CR₁₁ or N~~;

Y is ~~CR₇ or N with the proviso that when X is N, then Y must be CR₇~~;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;

m is an integer of ~~[[1,]]~~ 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

~~----~~ represents a single bond ~~or a double bond~~; or a pharmaceutically acceptable salt thereof.

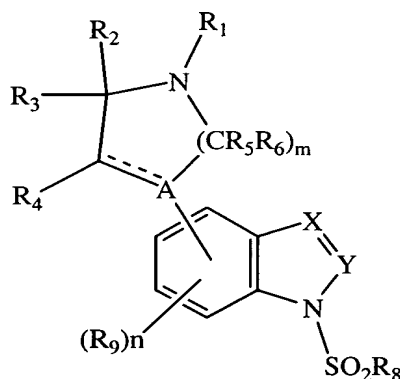
8. (Original) The method according to claim 7 wherein said disorder is a motor disorder, anxiety disorder or cognitive disorder.

9. (Original) The method according to claim 7 wherein said disorder is schizophrenia or depression.

10. (Original) The method according to claim 8 wherein said cognitive disorder is a neurodegenerative disorder.

11. (Original) The method according to claim 10 wherein said neurodegenerative disorder is Alzheimer's disease or Parkinson's disease

12. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I.



wherein

A is ~~C, CR₁₀ or N~~;

X is ~~CR₁₁ or N~~;

Y is ~~CR₇ or N with the proviso that when X is N, then Y must be CR₂~~;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;
R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;
m is an integer of [[1,]] 2 or 3;
n is 0 or an integer of 1, 2 or 3; and
---- represents a single bond ~~or a double bond~~; or
a pharmaceutically acceptable salt thereof.

13. (Currently Amended) The composition according to claim 12 wherein ~~A is N~~ and m is 2.

14. (Original) The composition according to claim 12 wherein R₈ is an optionally substituted phenyl group.

15. (Original) The composition according to claim 12 wherein R₂, R₃, R₄, R₅ and R₆ are H.

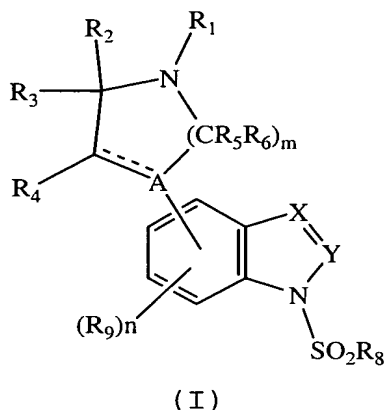
16. (Original) The composition according to claim 13 wherein R₁ is H or a C₁-C₆alkyl or cycloheteroalkyl group each optionally substituted.

17. (Currently Amended) The composition according to claim 16 having a compound of formula I selected from the group consisting of:

1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl ether;

4-piperazin-1-yl-1-([4-(trifluoromethoxy)phenyl]sulfonyl)-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;
4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
~~1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;~~
~~1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;~~
~~1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(5-bromothiophen-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(5-bromothiophen-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;~~
~~1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;~~
~~methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;~~
~~1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;~~
~~1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;~~
~~1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;~~
~~1-phenylsulfonyl-4-[4-(3-phenylpropyl)piperazin-1-yl]-1H-indazole;~~ and
the pharmaceutically acceptable salts thereof.

18. (Currently Amended) A method for the preparation of a compound of formula I.



wherein

A is ~~C, CR₁₀ or N~~;

X is ~~CR₁₁ or N~~;

Y is ~~CR₇ or N with the proviso that when X is N, then Y must be CR₇~~;

R₁ is C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

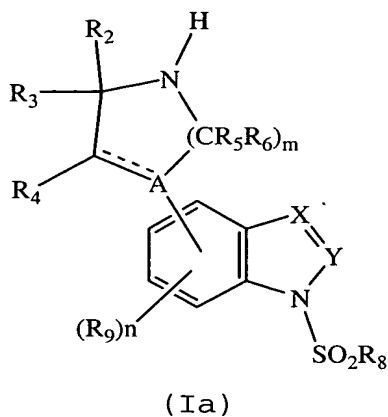
R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;

m is an integer of ~~[[1,]]~~ 2 or 3;

n is 0 or an integer of 1, 2 or 3; and

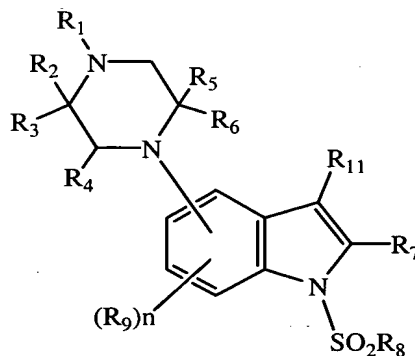
~~---~~ represents a single bond ~~or a double bond~~

said method which comprises reacting a compound of formula Ia



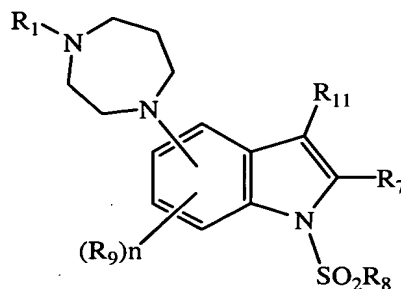
wherein A, X, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, m and n are as defined hereinabove for formula I with a compound R₁-Hal wherein R₁ is as defined hereinabove for formula I and Hal is Cl, Br or I.

19. (New) A compound according to claim 1 having the structure



wherein the piperazinyl moiety is attached to the 4- or 5-position of the indole ring.

20. (New) A compound according to claim 1 having the structure



wherein the homopiperazinyl moiety is attached to the 4- or 5-position of the indole ring.